

REMARKS

This application pertains to a novel process for separating solids, such as catalysts, present in dissolved or colloidal form from solutions in a nonaqueous solvent with the aid of a membrane.

The membrane used in Applicants' process has a hydrophobic coating. The hydrophobic coating is produced on the membrane by treatment with silanes (page 4, line 7). Suitable silanes are those of the general formula $R_1R_2R_3R_4Si$, wherein at least one but at most three of the groups R_1 to R_4 are hydrolyzable groups, e.g. $-Cl$, $-OCH_3$ or $-O-CH_2-CH_3$ and/or at least one but at most three of the groups R_1 to R_4 are nonhydrolyzable groups, e.g. alkyl groups or phenyl groups.

Claims 1-8 and 10-17 are pending, claim 9 being cancelled. Claim 9 is cancelled because it recited a broader range of the limitations now being added to claim 1.

Claims 1, 3-11, and 15-17 stand rejected under 35 U.S.C. 102(b) as anticipated by Tsuru et al ("Nanofiltration in Non-aqueous solutions by porous silica-zirconia membranes", J. Membrane Sci., 185(2001) 253-261).

Applicants previously pointed out that the Tsuru reference includes absolutely no teaching or suggestion of a membrane having a hydrophobic coating. Tsuru discloses

only the preparation of a hydrophilic silica/zircon membrane which is normally used for water separation by pervaporation or steam permeation and says that his preparation results in a "relatively hydrophobic surface" (p. 256, l. 16) but this is in comparison to water and not verified by flow measurement of hydrophobic solvents. Applicants also pointed out that Tsuru refers to the properties of the membrane itself, and not to any coating.

Tsuru's coating with the reaction product of tetraethoxysilane and zirconium tetra-n-butoxide and firing to form a silica-zirconia membrane is different than treating a membrane with a silane. In addition, there is absolutely nothing in the reference that would suggest that the resulting coating or the silica-zirconia membrane formed from it is hydrophobic. Quite simply, no person skilled in the art reading the Tsuru reference would see Tsuru as applying a hydrophobic coating to a membrane. Tsuru forms a membrane, not a coating on a membrane.

The Examiner, however, nevertheless insists that Tsuru's coating is a hydrophobic coating.

Therefore, in a determined effort to advance the prosecution of this application, Applicants have now amended their claims to recite the specific coating disclosed at page 4, lines 8-13 of their specification.

The tetraethoxysilane used by Tsuru clearly does not fall within the structural formula now recited in Applicants' claims. In addition, nothing in Tsuru would suggest

the changes that would be required to arrive at Applicants' coating.

Applicants' claims cannot therefore be seen as anticipated or suggested by Tsuru, and the rejection of claims 1, 3-11, and 15-17 under 35 U.S.C. 102(b) as anticipated by Tsuru et al ("Nanofiltration in Non-aqueous solutions by porous silica-zirconia membranes", J. Membrane Sci., 185(2001) 253-261) should accordingly now be withdrawn.

Claims 1-8 and 10-17 stand rejected under 35 U.S.C. 102(b) as anticipated by WO 01/07157.

As is the case of the Tsuru reference, nothing in WO 01/07157 would teach or suggest the specific hydrophobic coating now recited in Applicants' claims.

The rejection of claims 1-8 and 10-17 under 35 U.S.C. 102(b) as anticipated by WO 01/07157 should accordingly be withdrawn.

In view of the present amendments and remarks, it is believed that claims 1-8 and 10-17 are now in condition for allowance. Reconsideration of said claims by the Examiner is respectfully requested, and the allowance thereof is courteously solicited. Should the Examiner not deem the present amendment and remarks to place the instant claims in condition for allowance, it is respectfully requested that this Amendment Under Rule 116 be entered for the purpose of placing the prosecution record in better condition for appeal.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If any extension of time for this response is required, Applicants request that this be considered a petition therefor. Please charge the required petition fee to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fee or credit any excess to Deposit Account No. 14-1263.

Respectfully submitted,
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